

### REMARKS

Upon entry of this Amendment, claims 3 to 8 and 11 to 13 will be pending, of which claim 13 is independent. Claims 1, 2, 9, and 10 have been canceled. New claim 13 has been added. Support for this claim is found on page 1 (lines 1 to 2) and page 2 (lines 11 to 12 and 30 to 31) of the specification as filed. Claims 3 to 8, 11, and 12 are now dependent on claim 13. No new matter has been added as a consequence of these amendments to the claims. Accordingly, entry of the above amendments is respectfully requested as it is believed that these amendments place the application in condition for allowance and/or better condition for Appeal.

The present application is directed to an ink composition for ink jet printing comprising *inter alia* a water-miscible organic solvent, a water-immiscible organic solvent, and a non-crosslinked polyurethane.

Claims 1 to 3 and 5 to 12 were rejected under 35 U.S.C. §103(a) as being unpatentable over EP 732381 alone, or alternatively in view of Lent *et al.* (U.S. Pat. No. 5,837,042). Claims 1 to 2, 4 to 6, and 7 to 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Knäble *et al.* (U.S. Pat. No. 4,532,276) in view of Lent *et al.* Finally, claims 1 to 4, 6, and 9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Batlaw *et al.* (U.S. Pat. No. 5,429,841) in view of Lent *et al.*

The claims as amended specify an ink jet printing ink composition comprising among other components *non-crosslinked* urethane polymers. In contrast, the EP 732381 reference states that the particles of the composition are cross-linked urethane polymers (see, for example, page 3, lines 2 to 3). Furthermore, EP 732381 provides no suggestion for forming a composition comprising non-crosslinked urethane polymers.

There is no suggestion in either Knäble *et al.* or Batlaw *et al.* that the inks can be used in ink jet printing. The Knäble *et al.* reference discloses an aqueous writing or recording fluid (column 1, lines 7 to 10) intended for use in capillary channels with fibre tips (column 3, lines 15 to 21). Batlaw *et al.* disclose inks for use in gravure printing (column 3, lines 12 to 13). Accordingly, there is no suggestion in either of these references to form the ink jet printing ink composition of the present invention – much less the benefits achieved by the present composition.

Furthermore, the secondary reference (Lent *et al.*) does not overcome the above-noted shortcomings in the primary references. Consequently, the rejections in the outstanding

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Office Action no longer presents a *prima facie* case of obviousness and the Applicants respectfully request that the rejections be withdrawn.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached Appendix is captioned **"Version with markings to show changes made"**.

#### CONCLUSION

As all the objections and rejections noted in the Office Action have been addressed, Applicants request reconsideration of the present application and submit that this application is in condition for allowance. A timely Notice to that effect is respectfully requested. Should questions relating to patentability remain, the Examiner is invited to contact the undersigned to discuss the same.

Respectfully submitted,

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Enclosure: Appendix

**APPENDIX: VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS**

3. (Twice Amended) A composition according to claim **[1]** 13 wherein the colorant is soluble in the polyurethane.
4. (Twice Amended) A composition according to claim **[1]** 13 wherein the water-immiscible organic solvent is benzyl alcohol.
5. (Twice Amended) A composition according to claim **[1]** 13 comprising:
  - (a) from 0.5 to 50 parts of a water-dissipatable polyurethane having a weight average molecular weight less than 25,000;
  - (b) from 0.1 to 20 parts of colorant;
  - (c) from 40 to 90 parts of water;
  - (d) from 2 to 30 parts of a water-immiscible organic solvent; and
  - (e) from 2 to 60 parts of a water-miscible organic solvent;wherein all parts are by weight relative to the total **[and the total number of parts]** of (a) + (b) + (c) + (d) + (e) **[add up to 100]**.
6. (Twice Amended) A composition according to claim **[1]** 13 wherein the polyurethane has a **[an]** weight average molecular weight from 1,000 to 15,000.
7. (Twice Amended) A composition according to claim **[1]** 13 having a viscosity less than 20cp at 20°C.

8. (Twice Amended) A composition according to claim **[1]** 13 which has been filtered through a filter having a mean pore size below 10 $\mu$ m.

11. (Twice Amended) A process for printing an image on a substrate comprising applying thereto a composition according to claim **[1]** 13 by means of an ink jet printer.

12. (Twice Amended) An ink jet printer cartridge containing a composition according to claim **[1]** 13.

13. (New) An ink jet printing ink composition comprising a colorant, water, water-miscible organic solvent, water-immiscible organic solvent, and a water-dissipatable polyurethane having a weight average molecular weight less than 25,000, which is obtained from the reaction of:

- (a) at least one diisocyanate; and
- (b) at least one compound having one or two isocyanate reactive groups.